

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A recording device comprising:

one or more semiconductor memories;

an obtaining unit operable to obtain an upper limit of current to be supplied from an accessing apparatus to the recording device;

a command obtaining unit operable to obtain from the accessing apparatus at least one command, a type of which is one of a write command instructing data writing to the semiconductor memories and a read command instructing data reading from the semiconductor memories~~a command instructing access to the semiconductor memories~~;

an access unit operable to receive current supply from the accessing apparatus and access the semiconductor memories according to a one or more control signals; and

a control unit operable to calculate an access upper limit by subtracting an amount of current consumed by individual units other than the semiconductor memories and the access unit from the upper limit, set operating conditions of the access unit and the semiconductor memories according to the type of the obtained command, using the access upper limit,

_____ generate the control signals based on the obtained command and the operating conditions, and output the control signal.

2. (Currently Amended) The recording device of Claim 1, wherein

the control unit prestores therein a current consumption value representing an amount of current consumed by the access unit and the semiconductor memories, with respect to each type of the write and the read commands, ~~in association with the command~~, and sets the operating conditions corresponding to the type of the obtained command using the access upper limit and the current consumption value.

3. (Currently Amended) The recording device of Claim 2, wherein

the control unit sets the operating conditions ~~so that~~ cause a parallel-operation count of memories out of the semiconductor memories to operate in parallel, the parallel-operation count being smaller than or equal to number of pieces of all the semiconductor memories, and

outputs to the access unit the control signals generated based on the obtained command and the operating conditions, and instructing access to the parallel-operation count of memories,

and

the access unit accesses the parallel-operation count of memories.

4. (Original) The recording device of Claim 3, wherein

the current consumption value represents the amount of current consumed by the access unit and the semiconductor memories for causing one of the semiconductor memories to operate, and

the control unit calculates, as the parallel-operation count, a quotient obtained by dividing the access upper limit by the current consumption value.

5. (Currently Amended) The recording device of Claim 4, wherein

the access unit includes as many access subunits as the semiconductor memories, and each of the access subunits corresponds to a different one of the semiconductor memories,

the control unit generates the control signal that includes as many access signals as the parallel-operation count of memories,

each of the access signals is for instructing a different one of the access subunits to access a corresponding semiconductor memory thereof,

the control unit outputs each of the access signals to a corresponding one of the access subunits, and

access subunits that received the access signals access corresponding semiconductor memories according to the received access signals. ~~the control signals each include a memory information piece specifying one of the semiconductor memories,~~

~~the control unit sequentially outputs the control signals, and~~

~~the access unit receives each of the control signals and accesses a semiconductor memory specified by the memory information piece.~~

6. (Currently Amended) The recording device of Claim 2, wherein

the control unit sets the operating conditions ~~so that~~ cause the semiconductor memories to operate at a memory frequency which is no more than a maximum operating frequency of the semiconductor memories,

generates a clock signal having a same frequency as the memory frequency based on the

command and the operating conditions, and outputs to the access unit the control signals ~~each~~ including the generated clock signal, and

the access unit outputs the clock signals received from the control unit to the semiconductor memories and has access to ~~accesses~~ the semiconductor memories.

7. (Currently Amended) The recording device of Claim 6, wherein

the control unit prestores therein, as the current consumption value, a maximum current value which represents an amount of current consumed by the access unit and the semiconductor memories when each of the semiconductor memories operates at the maximum operating frequency, and calculates the memory frequency using the access upper limit and a ratio of the maximum operating frequency to the maximum current value.

8. (Original) The recording device of Claim 7, wherein

the control unit prestores therein the maximum operating frequency together with the maximum current value.

9. (Currently Amended) The recording device of Claim 6, wherein

the control unit prestores therein the current consumption value associated with the read command, ~~that instructs data reading,~~ and sets the operating conditions so that causes the semiconductor memories to operate at the memory frequency in response to the read command ~~instructing the data reading.~~

10. (Currently Amended) The recording device of Claim 6, wherein

the control unit includes a frequency divider, generates the clock signal having a same frequency as the memory ~~maximum operating~~ frequency using the frequency divider, and outputs the control signals ~~each~~ including the generated clock signal.

11. (Currently Amended) The recording device of Claim 6, wherein

the control unit includes a PLL (Phase Lock Loop), generates the clock signal having a same frequency as the memory ~~maximum operating~~ frequency using the PLL, and outputs the control signals ~~each~~ including the generated clock signal.

12. (Currently Amended) The recording device of Claim 2, wherein

the control unit sets, as the operating conditions, a 1st operating condition that causes ~~in which~~ a parallel-operation count of memories out of the semiconductor memories to operate in parallel and a 2nd operating condition that causes ~~in which~~ the semiconductor memories operate at an operating frequency no more than a maximum operating frequency of the semiconductor memories,

adopts at least one of the 1st and 2nd operating conditions based on the type of the obtained command, and generates the control signals based on the adopted operating condition.

13. (Original) The recording device of Claim 2, wherein

the semiconductor memories are flash memories.

14. (Original) The recording device of Claim 2, wherein

the semiconductor memories are nonvolatile magnetic memories.

15. (Original) The recording device of Claim 1, wherein

the obtaining unit obtains the upper limit by a Set Features command complying with ATA (AT Attachment) standard.

16. (Original) The recording device of Claim 1, wherein

the semiconductor memories are portable and detachable from the recording device, and

the obtaining unit, the access unit and the control unit make up a memory card drive device for reading and writing information from/to the semiconductor memories.

17. (Currently Amended) The recording device of Claim 15, wherein

the control unit outputs the control signals ~~each~~ including a clock signal, and

the access unit supplies the clock signal only to one or more of the semiconductor memories being accessed, and stops supply of the clock signal to remaining one or more of the semiconductor memories being not accessed.

18. (Currently Amended) An access method used in a recording device including one or more semiconductor memories, comprising the steps of:

obtaining an upper limit of current to be supplied from an accessing apparatus to the recording device;

obtaining from the accessing apparatus at least one command, a type of which is one of a write command ~~a command~~ instructing data writing access to the semiconductor memories and a read command instructing data reading from the semiconductor memories;

receiving current supply from the accessing apparatus and accessing the semiconductor memories according to a ~~one or more~~ control signals; and

calculating an access upper limit by subtracting an amount of current consumed by individual units other than the semiconductor memories and the access unit from the upper limit, setting operating conditions of the access unit and the semiconductor memories according to the type of the obtained command with use of ~~using~~ the access upper limit,

generating the control signals based on the obtained command and the operating conditions, and outputting the control signals.

19. (Currently Amended) An access program used in a recording device including one or more semiconductor memories, and causing a computer to execute the steps of:

obtaining an upper limit of current to be supplied from an accessing apparatus to the recording device;

obtaining from the accessing apparatus at least one command, a type of which is one of a write ~~a command~~ instructing data writing to access to the semiconductor memories and a read command instructing data reading from the semiconductor memories;

receiving current supply from the accessing apparatus and accessing the semiconductor memories according to a ~~one or more~~ control signals; and

calculating an access upper limit by subtracting an amount of current consumed by individual units other than the semiconductor memories and the access unit from the upper limit, setting operating conditions of the access unit and the semiconductor memories according to the type of the obtained command with use of ~~using~~ the access upper limit,

generating the control signals based on the obtained command and the operating

conditions, and outputting the control signals.

20. (Original) The access program of Claim 19 stored in a computer-readable recording medium.